Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-59 (Cancelled).

60(Currently amended). [[The]] A purified non-reducing saccharide-forming enzyme ~~of claim 59~~ which is [[an]] a non-reducing saccharide having a trehalose structure as an end unit from a reducing partial starch hydrolysate and which has an optimum temperature of over 40°C but below 60°C, wherein said enzyme ~~comprising~~ comprises the amino acid of SEQ ID NO:1.

61(Currently amended). The purified non-reducing saccharide-forming enzyme of claim ~~59 which is an enzyme consisting~~ 60, wherein said enzyme consists of the amino acid of SEQ ID NO:1.

62(Currently amended). [[The]] A purified non-reducing saccharide-forming enzyme ~~of claim 59 which is a fragment of (A)~~which forms a non-reducing saccharide having a trehalose structure as an end unit from a reducing partial starch hydrolysate and which has an optimum temperature of over 40°C but below 60°C, wherein said enzyme is a fragment of an enzyme comprising the amino acid sequence of SEQ ID NO:1.

63(Previously presented). The purified non-reducing saccharide-forming enzyme of claim 62, wherein said fragment comprises the amino acid sequence of SEQ ID NO:2 or SEQ ID NO:3.

64(Previously presented). The purified non-reducing saccharide-forming enzyme of claim 62, wherein said fragment comprises the amino acid sequence of SEQ ID NO:4, SEQ ID NO:5, or SEQ ID NO:6.

Claim 65 (Cancelled).

66(Currently amended). The purified non-reducing saccharide-forming enzyme of claim [[59]] 60, which has the following physicochemical properties:

(1) Action

Forming a non-reducing saccharide having a trehalose structure as an end unit from a reducing partial starch hydrolysates having a degree of glucose polymerization of 3 or higher;

(2) Molecular weight

About 75,000 ± 10,000 daltons on sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE);

(3) Isoelectric point (pI)

About 4.5 ± 0.5 on isoelectrophoresis using ampholyte;

(4) Optimum temperature

About 50°C when incubated at pH 6.0 for 60 min;

(5) Optimum pH

About 6.0 when incubated at 50°C for 60 min;

(6) Thermal stability

Stable up to a temperature of about 55°C when incubated at pH 7.0 for 60 min; and

(7) pH stability

Stable at pHs of about 5.0 to about 10.0 when incubated at 4°C for 24 hours.

67(Currently amended). The purified non-reducing saccharide forming enzyme of claim [[59]] 60, which is derived from a microorganism.

68(Currently amended). The purified non-reducing saccharide-forming enzyme of claim 67, wherein said microorganism is a member of the genus *Arthrobacter*.

69(Previously presented). The purified non-reducing saccharide-forming enzyme of claim 67, wherein said microorganism is *Arthrobacter* sp. S34, deposited under accession no. FERM BP-6450, or mutants thereof.

70(Currently amended). The purified non-reducing saccharide-forming enzyme of claim [[59]] 60 obtainable from a microorganism selected from the group consisting of *Arthrobacter* sp. S34, deposited under accession no. FERM BP-6450, and mutants thereof.

71(New). The purified non-reducing saccharide-forming enzyme of claim 62, which has the following physicochemical properties:

(1) Action

Forming a non-reducing saccharide having a trehalose structure as an end unit from a reducing partial starch hydrolysates having a degree of glucose polymerization of 3 or higher;

(2) Molecular weight

About 75,000 ± 10,000 daltons on sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE);

(3) Isoelectric point (pI)

About 4.5 ± 0.5 on isoelectrophoresis using ampholyte;

(4) Optimum temperature

About 50°C when incubated at pH 6.0 for 60 min;

(5) Optimum pH

About 6.0 when incubated at 50°C for 60 min;

(6) Thermal stability

Stable up to a temperature of about 55°C when incubated at pH 7.0 for 60 min; and

(7) pH stability

Stable at pHs of about 5.0 to about 10.0 when incubated at 4°C for 24 hours.

72(New). The purified non-reducing saccharide forming enzyme of claim 62, which is derived from a microorganism.

73(New). The purified non-reducing saccharide-forming enzyme of claim 62 obtainable from a microorganism selected from the group consisting of *Arthrobacter* sp. S34, deposited under accession no. FERM BP-6450, and mutants thereof.

74(New). The purified non-reducing saccharide-forming enzyme, which has the following physicochemical properties:

(1) Action

Forming a non-reducing saccharide having a trehalose structure as an end unit from a reducing partial starch hydrolysates having a degree of glucose polymerization of 3 or higher;

(2) Molecular weight

About 75,000 ± 10,000 daltons on sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE);

(3) Isoelectric point (pI)

About 4.5 ± 0.5 on isoelectrophoresis using ampholyte;

(4) Optimum temperature

About 50°C when incubated at pH 6.0 for 60 min;

(5) Optimum pH

About 6.0 when incubated at 50°C for 60 min;

(6) Thermal stability

Stable up to a temperature of about 55°C when incubated at pH 7.0 for 60 min; and

(7) pH stability

Stable at pHs of about 5.0 to about 10.0 when incubated at 4°C for 24 hours.